

**Notice of Allowability**

Application No.

10/782,481

Examiner

James D. Stein

Applicant(s)

TELKAMP ET AL.

Art Unit

2874

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 12/15/05.
2. ☒ The allowed claim(s) is/are 1-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
John D. Lee  
Primary Examiner

  
James D. Stein  
Patent Examiner, AU 2874

### **DETAILED ACTION**

This Office Action is responsive to the amendment filed on 12/15/05, which has been fully considered and entered. Independent claims 1 and 22 have been amended; leaving claims 1-31 pending in the application.

#### ***Allowable Subject Matter***

Claims 1-31 are allowed.

The following is an examiner's statement of reasons for allowance:

With regard to independent claim 1, none of the prior art of record discloses or suggests the waveguide system discussed previously wherein the third waveguide has a fourth waveguide portion crossing over the first waveguide portion, the fourth waveguide portion not being substantially coupled with the first waveguide portion.

With regard to independent claim 22, none of the cited prior art discloses or suggests the waveguide system discussed previously including a fourth waveguide having a fourth waveguide portion, the fourth waveguide portion running in a fourth direction on the first plane, the fourth direction being different than the first direction, and the third waveguide having a fifth waveguide portion, the fifth waveguide portion lying in the second plane, the fifth waveguide portion being directionally coupled with the fourth waveguide portion to propagate the second light signal from the fifth waveguide portion into the fourth waveguide portion.

These configurations allow applicant to achieve the particular out-of-plane coupling structure of the present invention as shown in fig. 4A, substantially reducing cross-talk between waveguides in the system. It would not have been obvious at the time of the invention to one of

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ordinary skill in the art to modify the waveguide system disclosed by the Braun reference of record to include such structure because the third waveguide does not include an additional waveguide portion that crosses over the first waveguide portion with no substantial coupling therebetween. Applicant has discovered that the present configuration facilitates desirable low-loss characteristics.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

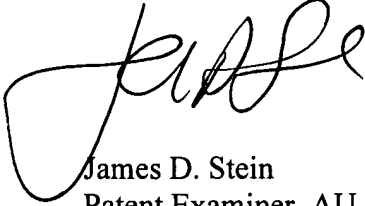
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Stein whose telephone number is (571) 272-2132. The examiner can normally be reached on M-F (8:00am-4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

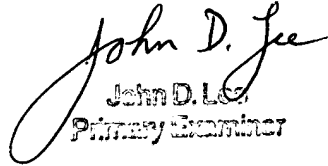
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direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James D. Stein  
Patent Examiner, AU 2874



John D. Lee  
Primary Examiner